Redefining the Core of Graduate Business Education: Towards the Master of Business in Global Innovation

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Innovation and globalization combine to define the two central drivers of global business and business education. Of the two, globalization is the best understood. However, even this relatively self-evident business driver has not been adequately addressed in graduate business education. It is rare for graduate business education to approach the global market as the dominant competitive context. Domestic considerations come first and the global perspective is added as time permits. Innovation has proven even more elusive, with emphasis on this driver often restricted to narrow consideration of technological innovation. In this paper, we address innovation as a driver of global business education.

Keywords: Innovation, MBA, Globalization

1. Introduction

The cornerstone of business education – the MBA – is increasingly obsolete. Where market demand for administrators capable of maintaining the large bureaucracies of the industrial world once dominated, business innovation in a global competitive context has now replaced business administration as the central challenge for business managers and leaders. As a result of this major shift in demand, the supply of graduate business education also needs to be redefined. With innovation at its core, now is the time to create a new graduate business degree – the Master of Business in Global Innovation.

The MBA degree was born in the USA at the turn of the 20th century, at the University of Pennsylvania – in a country where success was measured by more and bigger and lower cost. The steel business had become the icon of American achievement. Andrew Carnegie had taken an obsession for cost driven enterprise and efficient use of capital and labor to new levels of industrial output and personal wealth. In the ensuing years, industrials like Henry Ford built upon the concepts of minimizing production cost curves and increasing efficiency, transforming US business into a powerful productive enterprise. The MBA was created in face of the need to determine marginal costs and marginal revenues, contribution margins, average cost curves, breakeven points and resultant profitability. The core of the degree is told in its very name … Masters of Business ***Administration.*** Business was in need of detailed analysis and administration. The functions of the day were

financial and cost accounting, finance and management by objective. These functions carried the core MBA programs through the Second World War.

Not until the 1970's, when the rapidly growing economies of the fifties and sixties demonstrated an ability for supply to outstrip demand, did marketing work its way into MBA curricula in a significant fashion. And, after thirty years of accelerated growth in services industries, service and process quality get moderate attention in some MBA offerings. The production era gave way to the marketing era. Before MBA programs could adjust, the service era had come and given way to the age of global innovation.

In truth, the MBA is like a dying oak tree with its roots deeply entrenched in the production era and whose weighty branches have born the weight of supporting business training for decades. Some of the branches have been pruned over the years and a few new branches have spouted. However, in light of the new realities of the global marketplace, the old oak will soon be left to be admired as an icon of business history. A new day of business education is emerging.

The old MBA student studied business cases with other MBA students, sharing recycled ideas and solutions. Future graduate business students will engage in innovative problem solving through the use of cross functional teams drawn from diverse areas such as science and engineering as well as the arts and social sciences to engage in new product and process development projects. These teams will be funded by businesses and will receive course credit while developing new product ideas in response to company and industry specific problems. Innovative global teams will provide opportunities in the future for business graduate students to "think out of the box" and beyond geographic boundaries.

MBA programs today require global modules or components. Students study global enterprises and discuss issues of global markets, global communications and global supply chains. The new business student will go much further and will become involved in live global business initiatives. Technology will allow for blended coursework, global team projects and expanded opportunities for international contacts and virtual guest speakers. Students from multiple countries and cultures will solve problems on cross functional teams for companies which are truly multi-national.

2. Requirements for Mastery of Innovation in Graduate Business Education

To begin to see the expanded field of global innovation management for graduate business education, we very briefly survey the intellectual roots of innovation management. This review does not define the skill sets that students will require. It does however give an overview of the intellectual content of the study of innovation and the varied contexts in which students must achieve mastery.

Innovation describes the organizational processes by which knowledge and other resources are developed and combined in new ways to serve the markets of today and tomorrow. Innovation is global in scope and its value increases as global innovators find new ways to dramatically shorten product life cycles and erase the competitive advantage of incumbent firms (Doz and Williamson, 2004).

The core learning requirements for mastery of innovation can be grouped into four subject areas on these two dimensions:

1. Mastery of Intellectual Property -- the development of new scientific knowledge and technology;
2. Mastery of Complexity -- the development of new products, services and processes;
3. Mastery of Initiative -- the development of new ventures either outside the firm or within, and;
4. Mastery of Breakthrough thinking -- The development of new perceptions of "emergent reality"

2.1 New Science and Technology Development: Mastering Intellectual Property

Innovation has long been considered the product of scientific research conducted in a traditional R&D department. R&D develops knowledge from within the firm. It is inherently more difficult to manage with the same yardsticks of efficiency that might be applied to other areas of organizations. Lawrence and Lorsch (1966) found significant differences in the way organizations structure their R&D efforts compared to their operations, with most R&D departments exhibiting less formal structure and longer-term outlook than other departments. Departments that focus on basic research are more likely to be staffed by people with PhDs while those in departments devoted more to technology development are more likely to have business education and backgrounds.

Organizations pursue R&D knowing that much of the new knowledge that is explored is not likely to be worth developing into products and processes. Real option reasoning provides valuable insight into the various ways that organizations can make flexible commitments to R&D under conditions of uncertainty (McGrath, 1997). Lags between scientific discovery and technology development and commercialization occur because there are missing forms of knowledge concerning product design and production know-how (Narayanan, 2001). The pursuit of new knowledge yields valuable strategic capabilities in addition to product-specific benefits (Subramaniam & Youndt, 2005).

2.2 New Products, Services and Processes: Mastering Complexity

New product, service and production process development entails bringing together complex networks of specialized knowledge that no single organization can master. In contrast with traditional R&D, new product development is part of a more "open" innovation process that harnesses external resources (Chesbrough, 2003).

Creativity plays a role in new product development, but creativity poorly managed actually can be harmful and can prevent organizations from achieving successful innovation (Levitt, 2002). Complex products that are incrementally changed can be reconfigured into new "architectures" resulting in dramatic changes that destroy the usefulness of the knowledge of established firms (Henderson and Clark, 1990)

Research on innovation gives extensive attention to new product development. During the 1980s, Japanese companies in the automobile industry came to represent the state of the art in rapid, cost effective, high quality product development. The rise of Japan as an industrial power owed much to faster, more productive product and

process development (Womack, Jones and Roos, 1990). Companies learned that the complexity of new product introductions require large arrays of concurrent product-process design participation by suppliers (Howells, 1993).

Customers also play a role in effective product innovation (Linder and Jarvenpaa, 2003; Quinn, 2000). Engineering approaches such as quality function deployment (Akao) allow designers more freedom to design to meet customer needs by translating these needs into increasingly specific product and engineering specifications. Von Hippel takes this the role of the customer one step further and emphasizes the role of lead customers in actually creating their own new products (Thomke and Von Hippel, 2002).

Companies that accelerate their ability to conceive, develop and introduce complex products are more likely to approach innovation by incrementally increasing the newness of their products and technologies (Stalk and Hout, 1990). By seeking breakthroughs, firms might actually slow their ability to innovate. Faster innovators avoid what Henderson and Clark (1990) call radical innovations, where new knowledge combines in new ways to produce new products that require skills and capabilities that the firm does not already possess. The alternatives to radical innovation include introducing changes that require new knowledge while holding product architecture constant -- modular innovation -- or introducing product architectures using existing knowledge -- architectural innovations (Henderson and Clark, 1990).

New product innovation is challenged by both the global complexity of joining many kinds of specialized knowledge required in modern products and processes (Santos, Yves & Williamson, 2004). To help simplify this complexity, rapid incremental development of new products is also facilitated by designing "platform products" – groups of products aimed at a market segment or customer group, with the same product architecture applied to a series of related variations. This allows firms to rapidly introduce variations, and then periodically change the design architecture, and radically change architectures less frequently.

How firms design and manage their innovation efforts is critical to success. The complexity of internal and external coordination tends to overwhelm "lightweight" development teams which can at best coordinate functional departments. "Heavyweight" teams with increased authority and accountability are more likely to have the power to override functional department priorities and produce more effectively integrated innovations (Wheelright and Clark, 1990).

2.3 New Ventures: Mastering Initiative

Discontinuous innovations require breaking away from existing organization practices and perspectives and may also require the development and/or acquisition of new knowledge. This type of innovation often requires an approach resembling the creation of a new venture, whether in the form of a new organization, or in the development of a new product division within an existing organization (Christensen and Raynor, 2003).

Radical innovations require moving further away from internal control by the existing organization, and are more likely to be effective when an 'autonomous" development team within an organization is allowed to operate much as we would expect if a new venture was being created. A radical innovation is only loosely

related to existing organizational capabilities and resources and needs the opportunity to follow its own logic and assemble new configurations of resources and capabilities (Wheelwright and Clark, 1990).

Christensen acknowledges that the vast majority of innovation challenges that managers and organizations face are "sustaining" in character – and they are likely to be able to pursue these challenges using their new technology and product development competencies as described earlier in this literature review. However, if organizations are interested in preparing to serve markets as they will exist tomorrow, they cannot expect their customers to lead them there or their existing organizations to take them there. In order for organizations to thrive when future customer requirements remain uncertain, organizations must set aside their need for conclusive historical market data and engage in a learning process with a high bias for action-oriented, trial and error experimentation rather than the product development analysis and planning needed to master complexity.

2.4 New Perceptions of Reality: Mastering Breakthrough Thinking

Innovation processes include more than new scientific knowledge, new ventures and new products and processes. In the long-run the potential to innovate depends on the ability of an organization to perceive emergent opportunities in an unfolding reality (Brabandere, 2005).

In his study of why innovations occur in some geographic locations rather than others, Porter observed that firms innovate in environments where conditions present special opportunities and challenges that cause knowledge resources to be concentrated in specific geographic locations (Porter, 2001). Serving the most elusive and demanding customers, overcoming the most limited supply conditions and meeting the challenge of the most intense competitors are just the kind of conditions in which innovation thrives. By confronting reality in a challenging environment, moving from there into a more benign environment offers few barriers to success. Tough environments are good for innovation. Firms in a tough environment will learn to adapt to reality because they have no choice. On the other hand, firms that have enjoyed success with a high degree of bargaining power in relation to customers, suppliers and competitors and have achieved dominance in their product-markets find it far harder to innovate – they don't see the need to innovate.

Bower and Christensen (1995) also focus on organizational perceptions of the need to innovate. They draw our attention to the perceptual limits of successful incumbent firms who become blind to opportunities other than those that sustain their current customer base. Christensen (1997, 2003) explains the logic that firms use as they become increasingly devoted to providing more complex, technologically-advanced and feature-rich products to their existing customers. Innovations that sustain their ability to offer technologically superior products block recognition of discontinuous innovations that would serve new customers in new ways. The overlooked opportunities might be for new products that are technologically less sophisticated than their current products. By achieving higher mastery of technology, and higher mastery of complexity, firms risk losing a sense how best to respond to customers whose requirements for clarity of purpose and simplicity override their need for the most technologically advanced but poorly

calibrated product solution. Instead of asking "how can we use technological innovation to serve our customers better?", organizations might instead ask "who are we not serving and what innovations might enable us to offer them what they really want?"

3. Conclusions

The core of innovation management provides an opportunity to develop a new integrative focus for graduate management education. By recognizing the centrality of innovation to global business success, graduate management education can regain its place of importance as preparation for rapid career development for aspiring managers and business leaders. The MBA degree is increasingly obsolete because it is unable to move much beyond its functional disciplinary perspective. Attempts at cross-functional integration of MBA curriculum tend to meet with faculty resistance in part because there is no compelling alternative. Integration without purpose invites endless meetings to coordinate subject matter that at best is simply informed disciplinary boundary management and at worst can become a tremendous drain on faculty time and patience. Innovation transcends the disciplines and gives them meaning. In the long run, firms will innovate or die. Graduate management education will evolve as well or risk becoming an expensive irrelevance. The global nature of the higher education marketplace provides opportunities for new entrants to redefine the central purpose of the MBA as preparation for a career in organizations where the global market is the only market that matters and where mastering innovation is the key success factor.

4. References

1. Akao Y (1988). *Quality Function Deployment: Integrating Customer Requirements into Product Design*. Cambridge, MA, Productivity Press.
2. Brabandere LD (2005). *The Forgotten Half of Change*. Chicago, IL. Dearborn Trade Publishing.
3. Bower JL and Christensen CM (1995). Disruptive Technologies: Catching the Wave. *Harvard Business Review* **73**: 43-53.
4. Charitou CD and Markides CC (2003). Responses to Disruptive Strategic Innovation. *MIT Sloan Management Review* **44:** 55-63.
5. Chesbrough HW (2003). The Era of Open Innovation. *MIT Sloan Management Review* **44**: 35-41.
6. Chesbrough HW and Teece DJ (2002). Organizing for Innovation: When is Virtual Virtuous? *Harvard Business Review* **80:** 127-135.
7. Christensen CM, Musso CS and Anthony,S.D (2004). Maximizing the Returns from Research. *Research Technology Management* **47**: 12-18.
8. Christensen CM and Raynor E (2003). *The Innovator's Solution*. Boston, MA. Harvard Business School Press.
9. Christensen CM (1997). *The Innovator's Dilemma.* Boston, MA. Harvard Business School Press.
10. Doz Y and Williamson P. (2004). Is Your Innovation Process Global? *MIT Sloan Management Review,* **45**: 31-37.
11. Greve HR (2003). A Behavioral Theory of R&D Expenditures and Innovations: Evidence from Shipbuilding. *Academy of Management Journal* **46**: 685-702.

12. Herderson RM and Clark KB (1990). Architectural Innovation: The Reconfiguration of Existing Product Technologies and the Failure of Established Firms. *Administrative Science Quarterly* **35**: 9-30.
13. Levitt T (2002) Creativity is not enough. *Harvard Business Review* **80**: 137-146.
14. Lorsch JW and Lawrence PR (1965). Organizing for Product Innovation. *Harvard Business Review* **43**: 109:121.
15. Linder JC Jarvenpaa S and Davenport TH (2003). Toward and Innovation Sourcing Strategy. *MIT Sloan Management Review* **44**: 43-49.
16. McGrath RG (1997). A real options logic for initiating technology positioning investments. Academy of Management Review **22:** 974-996.
17. Porter ME (2001). Innovation: Location Matters. *MIT Sloan Management Revie*w **42**: 28-36.
18. Quinn JB (2000). *Outsourcing Innovation: The New Engine of Growth*. MIT Sloan Management Review **41:** 13-28.
19. Santos JY and Williamson P (2004). Is Your Innovation Process Global? MIT Sloan Management Review **45**: 31-37.
20. Schumpeter J (1934). The Theory of Economic Development. Cambridge, MA. Harvard University Press.
21. Stalk Jr. G and Hout TM (1990). Competing Against Time. New York, NY, Free Press.
22. Subramaniam M and Youndt MA (2005). The influence of intellectual capital on the types of innovative capabilities. *Academy of Management Journal* **48:** 450-463
23. Thomke S and Hippel EV (2002), Customers as innovators: a new way to create value. *Harvard Business Review* **80**: 4-74.
24. Wheelwright SC and Clark KB (1992). *Revolutionizing Product Development*. New York, NY, the Free Press.
25. Womack JP and Jones DT and Roos, D. (1990). *The Machine that Changed the World*. New York, Rawson Associates.